

NASA Aviation Safety Program Annual Technical Conference – 2009
Hilton Tyson's Corner, McLean, VA

DRAFT IIFD Agenda

Nov 17, 2009: Registration and Plenary Session

<i>Time</i>	
1:00 – 5:00	Plenary Session (Content TBD by NASA HQ)
5:00 – 7:00	Program Reception (Atrium)

Nov 18, 2009: Current Results & Technical Interchange (IIFD Track)

<i>Time</i>	<i>Location</i>	<i>Speaker</i>	<i>Organization</i>	<i>Presentation</i>
Topic: IIFD Present and Future				
08:00-08:30	TBD	Young	NASA	IIFD Project Overview, 2009 News of Note, and Track Overview
Topic: IIFD Flight Deck System Research – Multi-Disciplinary Solution Concepts				
08:30-09:00	TBD	Lozito	NASA	RDT&E of a Robust Automation-Human System Concept of Operations
09:00-09:30	TBD	Bailey	NASA	RDT&E of a 'Better-than-Visual' Display and Decision Support Concept of Operations
09:30-10:00	TBD	Shelton	NASA	Surface Map Traffic Intent Displays and Net-Centric Data-Link Communications for NextGen
10:00-10:30	TBD	Poster Session / Break		

<i>Time</i>	<i>Location</i>	<i>Speaker</i>	<i>Organization</i>	<i>Presentation</i>
Topic: IIFD Discipline-Specific Research				
10:30-11:00	TBD	Uijt de Haag	Ohio Univ.	Integrated Alerting & Notification 1
11:00-11:30	TBD	Galster	Aptima	Integrated Alerting & Notification 2: ALARMS: ALerting and Reasoning Management System
11:30-12:00	TBD	Kaber	NC St. Univ.	Testing and Validation of a Psychophysically Defined Metric of Display Clutter
12:00 – 1:30	TBD	Lunch		
Topic: IIFD Foundational Research				
1:30-2:00	TBD	Neece	NASA	Advances in Forward-Looking Sensing of Aviation Hazards
2:00-2:30	TBD	Latorella	NASA	Characterizing and Classifying the Functional State of Operators
2:30-3:00	TBD	Latorella/Sarter	NASA/Univ. of Mich.	Context-Sensitive Multi-Modal Interfaces
3:00-3:30	TBD	Poster Session / Break		
Topic: IIFD Design Tools				
3:30-3:40	TBD	Feary	NASA	Overview of IIFD Design Tool Research
3:40-4:00	TBD	Picciano	Aptima	Advanced Computational Methods for the Design of Automated Systems (ACM-DAS)
4:00-4:30	TBD	Sherry	GMU	Next Generation Automation Interaction Design Tools
4:30-5:00	TBD	Sarter/Sebok	Univ. of Mich.	Design Advisor Tool
5:00-7:00	TBD	Evening Poster Session and Social Event		

POSTER PRESENTATIONS

1. Eric Johnson, GIT, Predicting Human-Automation Interactions Through Modeling of Cognition and the Dynamic Flight Environment.
2. Eric Johnson, GIT, Verification of Metrics for Dynamic Function Allocation between Humans and Flight Deck Automation.
3. Lance Sherry, GMU, Bonnie John, CMU, Marilyn Blackmon and Peter Polson, UC-Boulder, Aviation Knowledge Corpus.
4. Lance Sherry, GMU, Bonnie John, CMU, Marilyn Blackmon and Peter Polson, UC-Boulder, Automated Semantic and Visual Salience Assessment.
5. Steve Fritz, Emerald Sky Technologies, Crew State Metrics.
6. Tom Schnell, University of Iowa, Operator State Sensing and Classification.
7. Jeff Mulligan, NASA ARC, Empirical Assessment of Visual Alert Conspicuity.
8. Ken Goodrich, NASA LaRC, Haptic Pilot State Estimation for Variable Autonomy Control.
9. Durand Begault and Beth Wenzel, NASA ARC, CrewSound: An Auditory Display System for the Study of Advanced Cockpit Communications.
10. Anna Trujillo, NASA LaRC, Variables Affecting Pilots' Control Reactions and the Control Authority Display Experiment.
11. Angela Harrivel, NASA GRC, Toward Improved Headgear for Monitoring with Functional Near Infrared Spectroscopy.
12. Yamira Santiago-Espada, NASA LaRC, MATB II: Redevelopment of the Multi Attribute Task Battery.
13. Loukia Loukopoulos, Key Dismukes, and Immanuel Barshi, NASA ARC, The Multi-Tasking Myth: Handling Complexity in Real-World Operations.
14. Alan Pope and Chad Stephens, NASA LaRC, Correlating an Engagement Index with Situation Awareness.
15. Brian Gore and Becky Hooey, NASA ARC, A Computational Implementation of a Human Attention Guiding Mechanism.
16. Denise Jones, NASA LaRC, Collision Avoidance for Airport Traffic – Concept Evaluation.
17. Walt Johnson and Jessica Nowinski, NASA ARC, Trajectory-Oriented Operations with Limited Delegation and Weather (TOOWILDx) Experiment.
18. Richard Billmers and Mary Ludwig, RL Assoc., A Near Infra-Red LiDAR System for External Hazard Detection and Mitigation.
19. Glenn Woodell and Dan Jobson, NASA LaRC, and Zia-ur Rahman, ODU, Adaptive Two-Scale Edge Detection for Visual Pattern Processing.
20. David Brinker and Andy Reehorst, NASA GRC, Advancements in Icing Remote Sensing and the NASA Icing Remote Sensing System (NIRSS).

November 19, 2009: Technical Interchange & Partnering

<i>Time</i>	<i>Location</i>	<i>Speaker</i>	<i>Organization</i>	<i>Presentation</i>
Topic: Industry/NASA Flight Deck Research Working Group Meeting (<i>open to all</i>)				
8:00-8:15	TBD	Young	NASA	Introductions; Review of charter; News of note since last meeting
8:15-8:45	TBD	Abbott	FAA	Process, progress, and findings of the PARC/CAST flight deck automation working group
8:45-9:15	TBD	Snow	Boeing	Accident trends; CAST activities; and research on unusual attitude indicators for commercial jets
9:15-10:30	TBD	Round-robin discussion	All	Chance for industry to comment on any/all conference presentations; discuss emerging issues; ongoing activities; plans
10:30-11:00	TBD	Young	NASA	Review of collaboration mechanisms and process; Wrap-up; Set next meeting date/location
11:00	Adjourn			

***Industry working group meeting will also be available via webex/telecon.**

***Possible 3rd industry presentation in 9:15-10:30 window; awaiting confirmation.**